#### Tuesday, July 7<sup>th</sup> 2015 NIST CC Forum Agenda

Theme: Cloud Standards Day		
8:00 AM	Registration and Networking	Green Foyer
9:00 AM	Introduction to Forum and Workshop  Robert Bohn, Cloud Computing Technical Program Manager, NIST	Red Auditorium
9:30 AM	Keynote 1: Introduction to JTC1 Cloud Development Efforts Karen Higginbottom, Hewlett Packard Company, Director, Standards Initiatives	Red Auditorium
10:15 AM	Plenary Session 1: Overview of SC38 Cloud Standards Donald Deutsch, Vice President Chief Standards Officer, Oracle	Red Auditorium
10:45 AM	Break (no-host)	NIST Cafeteria
11:00 AM	Plenary Session 2: Overview of Existing JTC1 Cloud Standards  Moderator: Joel J. Fleck II, Head − Cloud Standards, Hewlett-Packard  ➤ ISO/IEC 17788   ITU-T Y.3500 Cloud Computing − Vocabulary Overview, Eric  Hibbard, Chief Technical Officer Security and Privacy, Hitachi Data Systems  ➤ ISO/IEC 17789   ITU-T Y.3502 − Cloud Computing Reference Architecture Overview of Recommendation: Laura Lindsay, US National Standards Officer, Microsoft Corporation  ➤ Cloud Security and SC27, Said Tabet, Senior Technologist CTO Office, EMC	Red Auditorium
12:30 PM	Lunch (no host)	NIST Cafeteria
12:30 FM	Exhibits	Hall Of Flags
1:30 PM	Welcome Back and Afternoon Opening Remarks Willie E. May, Associate Director for Laboratory Programs, NIST	
1:40 PM	Plenary Session 3: Emerging JTC1 Cloud Standards  Moderator: Steve Holbrook, IBM Program Director, International Software Standards  ➤ ISO/IEC 19086 Standards for Cloud Service Level Agreements (SLAs), Michael John Edwards, Senior Technical Staff Member, IBM UK Ltd.  ➤ ISO/IEC 19941 - Cloud Computing Interoperability and Portability: Joel Fleck, ISO/IEC JTC 1/SC 38 WG4 Convener, Hewlett-Packard  ➤ ISO/IEC 19944 Data and their Flow across Devices and Cloud Services: Fernando Gebara Filho, ISO/IEC JTC 1/SC 38 WG5 Convener, Luciano Gebara Consultoria e Serviços Ltda	
3:00 PM	Break (no host)	NIST Cafeteria
3:15 PM	Plenary Session 4: The World of Cloud Computing Standards  Moderator: Donald Deutsch, Vice President Chief Standards Officer, Oracle  SNIA, Mark Carlson The Open Group, Heather Kreger  IEEE, Stephen L. Diamond CSA, Laura Lindsay	Red Auditorium
4:30 PM	<ul> <li>Moderated Panel 1: Future Direction of Cloud Standards</li> <li>Moderator: John Messina, Cloud Computing Program Senior Member, NIST</li> <li>Adoption of ISO/IEC 17826:2012, Mark Carlson, Storage Networking Industry Association, Vice-Chair SNIA Technical Council, Co-Chair Cloud Storage TWG</li> <li>Stephen L. Diamond, Global Standards Officer and General Manager of the Industry Standards Office, EMC Corporation</li> <li>Open Group's Platform 3.0 - Bringing together Cloud, Big Data, Mobile, and Internet of Things, Heather Kreger, IBM, CTO International Standards, IBM</li> <li>Laura Lindsay, US National Standards Officer, Microsoft Corporation</li> <li>Donald Deutsch, Vice President Chief Standards Officer, Oracle</li> </ul>	Red Auditorium
5:30 PM	Day 1 Closing Remarks Gordon Gillerman, Director of Standards Coordination Office, NIST	Red Auditorium

## Wednesday, July 8<sup>th</sup> 2015 NIST CC Forum and Workshop Agenda

	Theme: Security	
8:00 AM	Registration and Networking	Green Foyer
9:00 AM	Opening Remarks Donna Dodson, Senior Cybersecurity Advisor, NIST and Director, NCCoE	Red Auditorium
9:10 AM	Michaela Iorga, Senior Technical Lead for Cloud Computing, NIST	Red Auditorium
9:30 AM	Keynote 1: Rethinking our Security Maps: Visibility As a Key Enabler in Any Security Strategy Zulfikar Ramzan, CTO, RSA Security	Red Auditorium
10:00 AM	Plenary Session 1: Overcoming obstacles when adopting cloud-based solutions  Moderator: Anil Karmel, Founder and CEO, C2Labs  Ron Rice, DISA Risk Management Directorate, Cyber Security Standards Branch  Theresa Grafenstine, Inspector General at US House of Representatives  John Connor, NIST  Susie Adams, CTO, Microsoft Federal  Sujit Mohanty, Chief Cloud Technologist, HP Hellion Cloud	Red Auditorium
10:45 AM	Break (no host)	NIST Cafeteria
11:00 AM	Plenary Session 2: Unique Government Regulatory Requirements TIC/Cloud/Mobile Reconciliation-First Steps, Sara Mosley, Chief Enterprise Architect, DHS	Red Auditorium
11:30 AM	Plenary Session 3: Federal-sector Solutions for High-priority Security Requirements FedRAMP: Proving You Can Trust The Cloud, Matt Goodrich, Director, FedRAMP, GSA	Red Auditorium
12:00 PM	Plenary Session 4: Federal-sector Solutions for High-priority Security Requirements Kevin Dulany, Chief, Risk Management Framework Div., DoD-CIO	Red Auditorium
12:30 PM	Lunch (no-host) / Roundtables Exhibits	NIST Cafeteria Hall Of Flags
1:15 PM	Keynote 2: Everybody teaches cloud security - Why are we still getting it wrong?  Eric Martin, VP, Corporate and Solutions Security, Avaya	Red Auditorium
1:45 PM	<ul> <li>Plenary Session 5: Security Cloud Architectures and Overlay</li> <li>A Structured Security Overlay and its Applicability to Cloud, Harold Booth, NVD Project Lead, NIST</li> <li>A Heterogeneous Multi-Cloud Architecture for Superior Security, Availability and Performance, Vinay Purohit, Founder and CEO, CloudJunxion, Inc.</li> <li>The Inheritable Cloud Security Model, Merrick Watchorn, SAIC</li> </ul>	
2:45 PM	Break (no-host)	NIST Cafeteria
3:00 PM	Plenary Session 6: Private-sector Solutions for High-priority Security Requirements Security Lessons Learned: Enterprise Adoption of Cloud Computing, Jim Reavis, co- Founder and CEO, Cloud Security Alliance	Red Auditorium
3:30 PM	Plenary Session 7: Development of Security Metrics for Service-Level Agreements Leveraging the potential of Cloud Security Service Level Agreements, Jesus Luna, Director for Research, Europe, Cloud Security Alliance	Red Auditorium
4:00 PM	<ul> <li>Plenary Session 8: Privacy vs Security</li> <li>Moderator: Michaela Iorga, Senior Technical Lead for Cloud Computing, NIST</li> <li>Melvin Greer, Senior Fellow, Chief Strategist, Lockheed Martin</li> <li>Scott Coull, Research Scientist, RedJack</li> <li>Naomi Lefkovitz, Privacy Engineering Project Lead, NIST</li> <li>Jeffrey Ritter, External Lecturer, University of Oxford</li> <li>Ken E. Stavinoha, Technical Leader - Engineering, Security &amp; Trust Organization, Cisco Systems</li> <li>Mark Potter, Principal Systems Security Officer, StrategicHealthSolutions, LLC</li> </ul>	Red Auditorium
4:45 PM	Day 2 Closing Remarks Donna Dodson, Senior Cybersecurity Advisor, NIST and Director, NCCoE	Red Auditorium

## Thursday, July 9<sup>th</sup> 2015 NIST CC Forum and Workshop Agenda

	Theme: Forensics – Track 1	
8:00 AM	Registration and Networking	Green Foyer
9:00 AM	Opening Remarks James St. Pierre, Deputy Director of ITL, NIST	Red Auditorium
9:10 AM	Keynote 1: Cloud Forensics: Why Bother?  Michael Panico, Director, Information and Content Security, Warner Bros.  Entertainment Group	Red Auditorium
9:40 AM	Transition / Track Break	Red Auditorium
9:50 AM	Martin Herman, ITL Senior Advisor for Forensics and IT, NIST	Red Auditorium
10:00 AM	<ul> <li>Plenary Session 1: e-Discovery</li> <li>Moderator: Martin Herman, ITL Senior Advisor for Forensics and IT, NIST</li> <li>Jeffrey Ritter, External Lecturer, University of Oxford</li> <li>Melvin Greer, Senior Fellow, Chief Strategist, Lockheed Martin</li> <li>Allison C. Stanton, Director of e-discovery, FOIA, records, Civil Division Department of Justice,</li> <li>Eric Hibbard, CTO, Security &amp; Privacy, Hitachi Data Systems</li> <li>Matthew Wilkinson, Chief of Platform Services, NIST</li> </ul>	Red Auditorium
10:45 AM	Break (no-host)	NIST Cafeteria
11:00 AM	Plenary Session 2: Data Governance & e-Discovery  Clouds, Sunshine, and Public Sector Information Governance: A Legal Perspective, Jason Baron, Counsel in the Information Governance and eDiscovery Group, Drinker Biddle & Reath, LLP	Red Auditorium
11:30 AM	<ul> <li>Plenary Session 3: Deletion in the Cloud &amp; Data Integrity</li> <li>Danny Schilo, Senior Manager, Deloitte Forensic</li> <li>Forensic Considerations and Challenges Associated with Deletion in the Cloud, Robert Jackson, VP, Operations, SphereCom Enterprises</li> <li>Ensuring File Deletion in Cloud Storage Using Cloud Forensics, Sameer Sharma</li> </ul>	
12:30 PM	Lunch (no-host)	NIST Cafeteria
12:30 PM	Exhibits	Hall Of Flags
1:15 PM	Keynote 2: Greg Virgin, President & CEO, RedJack	Red Auditorium
1:45 PM	<ul> <li>Plenary Session 4: Time Synchronization &amp; Root of Trust</li> <li>Time Can Be Foggy in the Cloud, Mike Salim, VP &amp; CTO, American Data Technology,</li> <li>Cloud Root of Trust Platform, Ken E. Stavinoha, Technical Leader – Engineering, Security &amp; Trust Organization, Cisco Systems</li> <li>Towards Trustworthy Cloud Forensics: Securing E-Discovery, Event Timelines, and the Chain of Custody for Digital Evidence in Clouds, Ragib Hassan, Assistant Professor, University of Alabama at Birmingham</li> </ul>	Red Auditorium
1:45 PM 2:45 PM	<ul> <li>Time Can Be Foggy in the Cloud, Mike Salim, VP &amp; CTO, American Data Technology,</li> <li>Cloud Root of Trust Platform, Ken E. Stavinoha, Technical Leader - Engineering,</li> <li>Security &amp; Trust Organization, Cisco Systems</li> <li>Towards Trustworthy Cloud Forensics: Securing E-Discovery, Event Timelines, and</li> </ul>	
	<ul> <li>Time Can Be Foggy in the Cloud, Mike Salim, VP &amp; CTO, American Data Technology,</li> <li>Cloud Root of Trust Platform, Ken E. Stavinoha, Technical Leader – Engineering, Security &amp; Trust Organization, Cisco Systems</li> <li>Towards Trustworthy Cloud Forensics: Securing E-Discovery, Event Timelines, and the Chain of Custody for Digital Evidence in Clouds, Ragib Hassan, Assistant Professor, University of Alabama at Birmingham</li> <li>Transition Break (no-host)</li> <li>Plenary Session 5: Root of Trust and Forensics Architecture</li> <li>Industrial Data Centric Security Using Blockchain Technology, Matt Johnson, CTO, Guardtime</li> <li>A Novel Trust and Transparency Strengthening Cloud Forensic Framework, Arati Dixit, Associate Professor, Savitribai Phule, Pune University, Pune, Maharashtra, India</li> <li>SCRATCH: Secure Cloud Resource Architecture Technology Computing Harness, Rodrigo Sardinas, Auburn University</li> </ul>	Red Auditorium
2:45 PM	<ul> <li>Time Can Be Foggy in the Cloud, Mike Salim, VP &amp; CTO, American Data Technology,</li> <li>Cloud Root of Trust Platform, Ken E. Stavinoha, Technical Leader – Engineering, Security &amp; Trust Organization, Cisco Systems</li> <li>Towards Trustworthy Cloud Forensics: Securing E-Discovery, Event Timelines, and the Chain of Custody for Digital Evidence in Clouds, Ragib Hassan, Assistant Professor, University of Alabama at Birmingham</li> <li>Transition Break (no-host)</li> <li>Plenary Session 5: Root of Trust and Forensics Architecture</li> <li>Industrial Data Centric Security Using Blockchain Technology, Matt Johnson, CTO, Guardtime</li> <li>A Novel Trust and Transparency Strengthening Cloud Forensic Framework, Arati Dixit, Associate Professor, Savitribai Phule, Pune University, Pune, Maharashtra, India</li> <li>SCRATCH: Secure Cloud Resource Architecture Technology Computing Harness, Rodrigo Sardinas, Auburn University</li> <li>Keynote 3:</li> </ul>	Red Auditorium  NIST Cafeteria
2:45 PM 3:00 PM	<ul> <li>Time Can Be Foggy in the Cloud, Mike Salim, VP &amp; CTO, American Data Technology,</li> <li>Cloud Root of Trust Platform, Ken E. Stavinoha, Technical Leader – Engineering, Security &amp; Trust Organization, Cisco Systems</li> <li>Towards Trustworthy Cloud Forensics: Securing E-Discovery, Event Timelines, and the Chain of Custody for Digital Evidence in Clouds, Ragib Hassan, Assistant Professor, University of Alabama at Birmingham</li> <li>Transition Break (no-host)</li> <li>Plenary Session 5: Root of Trust and Forensics Architecture</li> <li>Industrial Data Centric Security Using Blockchain Technology, Matt Johnson, CTO, Guardtime</li> <li>A Novel Trust and Transparency Strengthening Cloud Forensic Framework, Arati Dixit, Associate Professor, Savitribai Phule, Pune University, Pune, Maharashtra, India</li> <li>SCRATCH: Secure Cloud Resource Architecture Technology Computing Harness, Rodrigo Sardinas, Auburn University</li> </ul>	Red Auditorium  NIST Cafeteria  Red Auditorium

## Thursday, July 9<sup>th</sup> 2015 NIST CC Forum and Workshop Agenda

	Theme: Cloud Research – Track 2	
8:00 AM	Registration and Networking	Green Foyer
9:00 AM	Opening Remarks	Red Auditorium
9:10 AM	James St. Pierre, Deputy Director of ITL, NIST  Keynote 1: Cloud Forensics: Why Bother?  Michael Panico, Director, Information and Content Security, Warner Bros.  Entertainment Group	Red Auditorium
9:40 AM	Transition / Track Break	
9:50 AM	<ul> <li>Plenary Session 1: Next Steps for the Cloud         Moderator: John Messina, Cloud Computing Program Senior Member, NIST         <ul> <li>Challenges in Adaptive Management for Cloud Environments, Joel Fleck, Head – Cloud Standards, Hewlett-Packard</li> <li>Taxonomy and use description for data in the cloud, Babak Jahromi, Cloud Standards Architect, Microsoft Corporation</li> <li>Future for Cloud Connectivity in a Software Defined World, Steven Woodward, CEO, Cloud Perspectives</li> </ul> </li> </ul>	Green Auditorium
10:45 AM	Break (no-host)	
11:00 AM	<ul> <li>Plenary Session 2: Measuring the Cloud         Moderator: Eric Simmon, Cloud Computing Program Senior Member, NIST         Cloud Metric Framework, Frederic de Vaulx, NIST CC Metrics PWG Chair         Quantitative Clustering of Cloud Computing Projects for Better Standards Profiling, Neil Caithness, Senior Researcher, University of Oxford         Predicting Global Failure Regimes in Complex Information Systems, Kevin Mills, NIST         Eric Bauer, Reliability Engineering Manager, Alcatel-Lucent     </li> </ul>	Green Auditorium
12:00 AM	Plenary Session 3: Recommendations for Cloud adoption: where are we? Emmanuel C. Darmois, CEO, CommLedge, France	Green Auditorium
12:30 PM	Lunch (no-host) Exhibits	NIST Cafeteria
1:15 PM	Plenary Session 4: Federated Clouds  Moderator: John Messina, Cloud Computing Program Senior Member, NIST  (Cloud) Federation Management, Craig A. Lee, Senior Scientist, The Aerospace Corporation  Plug into the Supercloud, Hakim Weatherspoon, Professor, Cornell University  Application Interoperability on Cloud, Swapnil Kulkarni, Senior Software Engineer, Red Hat, Program Manager - Standards & Interoperability at CCICI	Hall Of Flags Green Auditorium
2:45 PM	Transition Break (no-host)	NIST Cafeteria
3:00 PM	<ul> <li>Plenary Session 5: Root of Trust and Forensics Architecture</li> <li>Industrial Data Centric Security Using Blockchain Technology, Matt Johnson, CTO, Guardtime</li> <li>A Novel Trust and Transparency Strengthening Cloud Forensic Framework, Arati Dixit, Associate Professor, Savitribai Phule Pune University, Pune, Maharashtra, India</li> <li>SCRATCH: Secure Cloud Resource Architecture Technology Computing Harness, Rodrigo Sardinas, Auburn University</li> </ul>	Red Auditorium
4:00 PM	<b>Keynote 3: Mark Ryland</b> , Senior Manager, AWS Security Programs, Amazon	Red Auditorium
4:30 PM	Q&A and Open Floor Discussion	
4:45 PM	Day 3 Closing Remarks Ram Sriram, Chief, Software and Systems Division, NIST	Red Auditorium

# Friday, July 10<sup>th</sup> 2015 NIST CC Forum and Workshop Agenda

#### **Theme: Cloud Customer – Industry and Governments**

8:00 AM	Registration and Networking	Green Foyer
9:00 AM	Opening Remarks Robert Bohn, Cloud Computing Technical Program Manager, NIST	Red Auditorium
9:10 AM	Keynote 1: Dawn Leaf, CIO, US Department of Labor	Red Auditorium
10:00 AM	<ul> <li>Moderated Panel 1: Governmental Solutions and Needs         Moderator: Robert Bohn, Cloud Computing Technical Program Manager, NIST         Pearse O'Donohue, Head of Unit, Software &amp; Services, Cloud European Commission, DG CONNECT         Vijaykant R. Nadadur, Founder &amp; CEO, Tationem         Gunnar Hellekson, Chief Strategist, Red Hat US Public Sector     </li> </ul>	Red Auditorium
10:45 AM	Break (no-host)	NIST Cafeteria
11:00 AM	<ul> <li>Plenary Session 1: Cloud Acquisition</li> <li>Moderator: Annie Sokol, Cloud Computing Program Senior Member, NIST</li> <li>Escaping the IT Trap, Patrick T. Stingley, CTO Bureau of Land Management</li> <li>Focus on Cloud Customers, Skip Jentsch, IaaS Service Line Manager, GSA</li> <li>Enterprise Cloud: Not Just A Click-Through Agreement, Karen E. Petraska, Service Executive for Computing Services, NASA</li> <li>Buying Cloud Services, Sherwin McAdam, Office of Information Systems Management, NIST</li> </ul>	Red Auditorium
12:30 PM	Lunch (no-host) / Roundtables Exhibits	NIST Cafeteria Hall Of Flags
1:30 PM	<ul> <li>Plenary Session 2: Cloud Computing Service Level Agreements         Moderator: Robert Bohn, Cloud Computing Program Manager, NIST         Cloud Computing Service Level Agreements: ISO 19086 Standard – Part 1, Michael John Edwards, Senior Technical Staff Member, IBM UK Ltd.         Cloud Computing Service Level Agreements: ISO 19086 Standard- Part 2, Eric Simmon, Cloud Computing Program Senior Member, NIST         Automation of cloud SLAs and extracting metrics, Karuna Pande Joshi, Research Assistant Professor, University of Maryland, Baltimore County         Practical Guide to Cloud Service Agreements, Michael John Edwards, Senior Technical Staff Member, IBM UK Ltd., CSCC     </li> </ul>	Red Auditorium
2:45 PM	Break (no-host)	NIST Cafeteria
3:00 PM	Plenary Session 3: Cloud Services  Moderator: Eric Simmon, Cloud Computing Program Senior Member, NIST  ➤ Accessibility of, by, and for the Cloud, Jim Tobias, President, Inclusive Technologies  ➤ Qualifying and Categorizing Cloud Services, Cary Landis, Executive Director, FedPlatform.org	Red Auditorium
3:45 PM	<ul> <li>Plenary Session 4: Cloud Partners</li> <li>Moderator: Robert Bohn, Cloud Computing Technical Program Manager, NIST</li> <li>Alan Sill, Senior Scientist, High Performance Computing Center Adjunct Professor of Physics, TTU; VP of Standards, Open Grid Forum</li> <li>Annie Sokol, Cloud Computing Program Senior Member, NIST</li> </ul>	Red Auditorium
4:45 PM	Day 4 Closing Remarks Robert Bohn, Cloud Computing Technical Program Manager, NIST	Red Auditorium